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ABSTRACT

Neither teachers nor students have been instructed in the meaning of non-verbal communication. Several assumptions are presented regarding the nature of non-verbal communication. It has been difficult to do research and reporting in this field due to difficulty in data collection, the complexity of human communication, analization difficulty, inadequate measures of reliability and validity, and absence of useful categories. Recently, researchers and educators are investigating how non-verbal languages are learned, their unique forms in cultural expression, and creating observational instruments that describe classroom interaction. In the author's initial study of classroom non-verbal communication, he developed an observational system describing the consequences of non-verbal categories, the purpose of which was determining whether a reliable observational procedure could be developed. Categories were added, the advantage being economy of effort and abbreviated note-taking. Non-verbal training and skill development are in the beginning stages. By improving non-verbal skills, teachers learn their own behavior and its meanings and its meaning to students, and they learn to observe and detect non-verbal information from students. The importance of non-verbal behavior would emphasize teacher and student non-verbal cues and result in a better understanding the nature of teaching and learning. (JF)

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ANALYSIS OF THEORIES AND RESEARCH IN NONVERBAL COMMUNICATION

by Charles M. Galloway

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FOREWORD

While verbal interaction patterns have been widely analyzed as representative of the nature of teacher-student relationships, nonverbal communication has been neglected. There has been a mistaken assumption that nonverbal patterns are comparable to those which are verbal--and which are easier to study and to categorize. This monograph by Charles M. Galloway provides useful information and perspectives on a crucial aspect of human relationships.

Galloway emphasizes the impact that a teacher has through the totality of his being and behaving. Teachers interacting with children, youth, and citizens with compatible backgrounds and objectives have prior unconsciously absorbed nonverbal interaction meanings. Also, in past days the meanings attributed to nonverbal behavior norms were those of the middle class--or those aspiring to become middle class--and prescribed for students.

Now intensive efforts are being made to recruit school personnel from the total spectrum of America's diverse population and to adapt to the student's concepts and lifestyles in an effort to help him. School personnel want to capitalize on all means of communicating and removing barriers to effective interaction. Knowledge of nonverbal communication is a key tool in doing this.

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--Joel L. Burdin
Director

February 1972

ABSTRACT

Neither teachers nor students have been instructed in the meaning of nonverbal communication. Several assumptions are presented regarding the nature of nonverbal communication. It has been difficult to do research and reporting in this field due to difficulty in data collection, the complexity of human communication, analization difficulty, inadequate measures of reliability and validity, and absence of useful categories. Recently, researchers and educators are investigating how nonverbal languages are learned, their unique forms in cultural expression, and creating observational instruments that describe classroom interaction. In the author's initial study of classroom nonverbal communication, he developed an observational system describing the consequences of nonverbal categories. Its purpose was to determine whether a reliable observational procedure could be developed. Categories were added, the advantage being economy of effort and abbreviated notetaking. Nonverbal training and skill development are in the beginning stages. By improving nonverbal skills, teachers learn their own behavior and its meanings and its meaning to students, and they learn to observe and detect nonverbal information from students. The importance of nonverbal behavior would emphasize teacher and student nonverbal cues and result in a better understanding of the nature of teaching and learning. (JF)

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INTRODUCTION

The significance of nonverbal communication has long been recognized by teachers and students. Teachers believe that their facial expressions, body movements, postures, and gestures make a difference to students. Teachers also realize that furniture arrangements, uses of time, and travel patterns (movement to and from students) influence the tenor of classroom life. Students soon learn the meaning of teacher expressions. The eyes are dead giveaways. Glances and eye contact express support, disapproval, or neutrality. Specific gestures signify a class period is ended, an explanation is requested, or student behavior is disruptive. All of this and more is understood by teachers and students when they interact in classrooms.

Neither teachers nor students have been instructed in the meaning of these events. No teacher ever deliberately teaches such a curriculum. Much of this reality is gained from the mere requirement of having to be in school and from a shared definition of what it means to be a teacher or student. Nonverbal communication occurs as a practical matter, and its significance becomes an obvious concern to teachers and students. Nonverbal communication is best understood at this common sense level. The testimonies of teachers and students have long born witness to the importance of nonverbal cues and their consequences, yet theoreticians and researchers have failed to investigate its influences on school life. Why has this been so?

The neglect has been fostered by several factors. The foremost has been the eagerness of researchers to study the contents and patterns of classroom discourse. Educators are enamored with the economy and eloquence of their verbal influence on students. To tell students what to do and how to do it has been supported historically as the sine qua non of teaching. Prior to the past 20 years, educators and researchers knew little of the precise influence of verbalization on student learning. It was assumed, however, that the quantities and qualities of talk between teachers and students represented basic variables for research. Nonverbal behaviors were assumed to be consistent with verbal behaviors, and the actual influence of nonverbal cues was believed to correspond with verbal interaction. In other words, a valid sampling of verbal behavior was assumed to be an adequate sampling of nonverbal influence. While such an assumption had little or no support from behavioral scientists in anthropology, sociology, and psychology, educators found the assumption useful.

Whether educational researchers have neglected to do studies on nonverbal influence because of their belief that little difference existed between verbal and nonverbal realities is difficult to determine. The belief, nonetheless, served as an artificial justification for not having to deal with the observational difficulties of nonverbal cues. It is

evident that reliable observations of nonverbal influence are most difficult. Nonverbal observational approaches have not been developed in educational research as well as they have been developed by anthropologists and psychologists. Educators have not developed approaches to observe nonverbal phenomena with the results that can be claimed by anthropology and psychology. Anthropologists record signficant behaviors that influence cultural learning, and psychologists study the specific effects of nonverbal cues. The most overwhelming difficulty faced by investigators in behavioral disciplines has been determining which methods of analysis reveal the meanings of nonverbal information. No current method claims to have a dictionary of definitions which describe the meanings of nonverbal behavior.

The profound problem in research on nonverbal behavior is finding these meanings. Dictionaries are available to provide the meanings of words. References are made to dictionaries to discover word definitions, but word meanings are never complete until we understand their usage in context. Words can be used to communicate almost anything. Verbal literacy is actually connected to our ability to understand and to use words, and dictionaries are enormously helpful. But the test of meaning awaits the precise way a word is used and the response it gets. Nonverbal cues and body languages suffer from a similar disadvantage, but the handicap is even greater because no dictionary of behavioral signs and signals with their definitions exists for handy reference. The meanings of nonverbal behaviors are learned during human contacts, and no assurances can be given that one's working dictionary is valid and reliable.

To know that feelings can be conveyed through touch, facial expression, tone of voice, posture, rate of speech, body movement, etc., provides no assurance that one can detect when and how a feeling is communicated. For instance, a listener may sense the feeling a person sitting across from him is expressing in conversation but have trouble identifying its precise referent. That is, he does not know where the feeling came from or how he formed his impression. Untrained adults and children easily infer that they are liked or accepted from their reception of nonverbal cues but may be unable to identify the bases for the inference. When a distinction is made between verbal (words) and nonverbal information (intonation, tone, stress, length and frequency of pauses), each mode of expression (verbal or nonverbal) may not convey the same feeling. Sarcasm is easily recognized when a contradiction exists between verbal and vocal information. Usually the verbal message is positive while the vocal information is negative. When someone calls a person "honey" in a nasty tone of voice, two pieces of information are conveyed simultaneously, and the nonverbal information carries the heavier loading of meaning. Similarly, it is possible to say, "I hate you" in a way that conveys an opposit*18* ntent.

The Realities of Nonverbal Influence

Whenever human beings come into contact, a reality exists that is understood and shared without words. This is the fundamental assumption that undergirds the significance of nonverbal communication. People everywhere bear testimony to the assumption that nonverbal influences are recognized and understood. Since teachers and students engage in continual communicative contacts, it is reasonable to assume that nonverbal relationships exist.

Theoretical arguments have been promulgated by many scholars suggesting why nonverbal phenomena are significant to human relationships. Hall,[1] Birdwhistell,[2] Goffman,[3] Ruesch,[4] and Davitz,[5] to name a few, have provided imaginative explanations and descriptions of nonverbal realities. Perhaps, the most adequate rationale and set of assumptions have been provided by Ekman.[6]

Nonverbal behavior can be viewed as a relationship language.[7] Silent cues signal a change or provide continuity of any interpersonal relationship. These cues, whether by face, eyes, or gesture, can be the primary means of expressing attitudes of intimacy, aloofness, concern, or indifference. Teacher attitudes can be inferred from the way a teacher looks at a student or looks to avoid him. Not only do special nonverbal cues appear to exist between a teacher and some students implying favorable relationships, but the very absence of these cues can be noticed between the same teacher and other students. Although differing teacher-student relationships can be quite evident on these nonverbal terms, little or no conversation occurs regarding this reality.

A second assumption, generally shared by psychologists, is that nonverbal behaviors are the primary vehicles for expressing emotion.[8] Behaviors convey hate, fear, anger, anxiety, and other emotions. Feelings of pleasure or distrust can be transmitted by teacher or student. Although teachers may state their feelings in verbal forms, the existence of nonverbal signs can belie and contradict verbal utterances. Students often wonder whether a correspondence exists between what a teacher feels and what he says. Words may fail to be persuasive carriers of feeling since nonverbal behaviors are often more convincing.

Another assumption emphasized by Ruesch and Kees asserts that nonverbal cues function as qualifiers in the form of metacommunicative messages to indicate how verbal statements ought to be understood.[9] For

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[1]Edward T. Hall, The Silent Language (New York: Doubleday and Co., 1959).

[2]Ray L. Birdwhistell, Kinesics and Context (Philadelphia: University of Pennsylvania Press, 1970).

[3]Erving Goffman, The Presentation of Self in Everyday Life (New York: Doubleday and Co., 1959).

[4]Jurgan Ruesch and Weldon Kees, Nonverbal Communication (Berkeley: University of California Press, 1956).

[5]Joel R. Davitz, The Communication of Emotional Meaning (New York: McGraw-Hill, 1964).

[6]Paul Ekman and Wallace V. Friesen, "Nonverbal Behavior in Psychotherapy Research," Research in Psychotherapy, 3:179-216; 1968.

[7]Ibid., p. 180. [8]Ibid. [9]Ruesch and Kees, op. cit.

instance, a student at his desk may signify verbally that he is working but simultaneously act out a nonverbal performance that he is busy, since he believes that this kind of behavior is more convincing. While he may actually be working at his assigned task, much of his energy is spent in looking like he is working. Oftentimes a teacher, lacking a certain firmness in his voice when remonstrating students to stop talking, causes students to surmise that it is okay to continue their conversation. Conversely, a smile, frown, or gesture can accompany a verbal request which makes the direction of the intended meaning very clear.

An assumption shared by behavioral scientists in several fields and strongly supported by psychiatrists is that nonverbal behavior provides a leakage channel which is difficult to control or to censor.[10] In simple language, this means that nonverbal behavior is more likely to reveal true emotions and feelings and is less likely to be deceptive. Nonverbal behaviors give away how one feels while verbal communications are more easily disguised in expressing feelings. It is well known that most people are unaware of their body language and the feelings they convey to others. In ordinary circumstances one has no feedback available regarding the leakages of feeling that occur in body language. Verbal language offers the marvelous facility of providing immediate feedback since a person can hear himself talk. One is tempted to infer that others grasp the meaning of a person's verbal statements to the same extent that he understands the meaning of his own information. Whether information comes in the form of verbal or nonverbal messages, it is essential to obtain feedback and to recognize that leakages and misunderstandings can be the message.

A difficulty in monitoring one's nonverbal messages is that little feedback is available because a person cannot see himself. Others may comment on what someone says or how he says it, but little information is shared regarding body movement and expression. Our culture lacks a ready language for discussing nonverbal cues, and people are hesitant to discuss how others act to their faces. Students have long delighted in discussing among themselves the behavioral idiosyncracies of teachers, but rarely will they discuss them with the teacher himself. While we can assume that we are much less aware of our nonverbal behavior than our verbal, the writings of Goffman present another view on this matter. He suggests that nonverbal behaviors can be managed to achieve a desired effect.[11] His view emphasizes the idea that people in everyday life take on roles for the express purpose of achieving proper impressions. This does not mean, however, that impression management is easy. Everyone is not successful in achieving effects that are in his best interest. Despite the successes of behavioral management, which can be associated with courtroom lawyers, diplomats, used car salesmen, and others, nonverbal cues are less manageable and more revealing than verbal information.

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[10]Paul Ekman and Wallace V. Friesen, "Nonverbal Leakage and Clues to Deception," Psychiatry, 32:88-105; February 1969.

[11]Goffman, The Presentation of Self, p. 6.

A final assumption about nonverbal behavior implies that learned patterns of body language are associated with what it means to be a teacher or student in school.[12] Certain specified behavioral cues and responses are learned by teachers and students in their role-taking activities in classrooms. Teachers throughout this culture have been observed in the act of snapping their fingers to get attention, holding a finger to their lips to achieve silence, folding their arms to signify disapproval, staring directly at students to convey negative reinforcement, and pointing at students to give directions. These signs and signals are well understood by students, and any observer can see the results.

Students also acquire behavioral cues necessary to their role as schoolgoers. They can be observed looking as though they listen; as though they are busy at work with their academic assignments; and as though, with nodding heads, they understand teacher explanations and instructions. Students learn very early in school to raise their hands to be recognized, and they soon discover what hand-raising strategies are in their best interest. Body cues among teachers and students provide the means for influence when words would probably fail to be as effective. Many nonverbal behaviors are common to the performance of what it means to teach and to go to school.[13]

Why should it be necessary to say that nonverbal behavior provides unique information apart from verbal information? What is the significance of body languages to classroom interaction and school life? Information seekers, whether they be teachers or students, will always search for extra data when they are not satisfied with verbal information alone. This condition of being discontent with the narrow range of verbal information and of relying on nonverbal data occurs when teachers and students are (a) unwilling or incapable of verbalizing information, (b) unapproachable to obtain information, or (c) uncertain about what is said verbally. In effect, body languages speaks loudly when verbal information is missing or in doubt.

Problems in Studying Nonverbal Behavior

Although nonverbal behavior is a rich source of information, tough-minded researchers recognize the research difficulties. Problems continue to plague the unwary who believe data are easily obtainable. It is all too clear that nonverbal studies are difficult to design. Measureable units of behavior are not readily available and precise analytic methods have not been devised. Many nonverbal cues that appear in classrooms are elusive and ephemeral. Observers find data collection to be confounding and laborious. The very behaviors that motivated and led the researcher

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[12]Charles M. Galloway, Teaching Is Communicating: Nonverbal Language in the Classroom, AST Bulletin No. 29 (Washington, D.C.: Association for Student Teaching, a national affiliate of the National Education Association, 1970).

[13]Ibid., pp. 5-7.

to the classroom prove to be the most elusive sources of data to identify and measure. When looking at nonverbal interactions between teachers and students, an observer is reminded again and again that human communication is highly complex and difficult to analyze. Unless rigorous precautions are taken, a researcher will lack adequate measures of reliability and validity, and he will be uncertain of the usefulness of his information. Accuracy and fidelity are the historic problems which have confronted researchers in all fields of behavioral analysis.

After completing his monumental work The Origin of the Species, Charles Darwin turned his attention to "the expressions of emotion in men and animals."[14] He encountered little difficulty in describing behavioral characteristics that were representative of various emotions. He believed that emotions and their expressional referents were everywhere the same. His research suggested cross-cultural similarities in the expressions of happiness, sadness, elation, et cetera. In other words, a smile is a smile is a smile: men everywhere show happiness when they smile. Darwin believed the smile was a vestigial reminder of man's earlier evolution. Like an animal, man bared his teeth to ward off enemies. To Darwin, a smile was simply a sublimated version of snarling. More importantly, Darwin theorized that human expressions could be traced to the earlier functions they performed in survival. Today, there is a disagreement with Darwin's thesis that expressions have the same definition and purpose for all men.[15] Indeed, anthropologists point out different purposes similar expressions can have in different cultures. Cultural and sub-cultural differences are stressed as significant variables in interpreting nonverbal behavior. Darwin underestimated the influence of acculturation processes, and his view is assumed by anthropologists to reflect the bias of biological analysis. The recent development of ethnology follows from Darwin's work. Ethnology focuses on the purposeful expressions of men and animals. A major problem for any investigator while observing human behavior is the corrupting influence of cultural difference. The notion of being able to interpret pure nonverbal behaviors without a knowledge of context is quite untenable.

Many of the early experimental studies of this century tested whether observers and judges could accurately identify the emotions of subjects when specified emotions were expressed nonverbally. Stimuli were usually provided by photographs of posed expressions. Much of this work led to inconclusive results.[16] One factor that precluded accurate judgments by observers was the absence of context. Missing a definition of the situation and an understanding of the context in which the expression occurred, observers were inconsistent in their judgments. Another factor in these

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[14]Charles Darwin, The Expression of the Emotions in Man and Animals (New York: Philosophical Library, 1955).

[15]Birdwhistell, Kinesics, pp. 29-34.

[16]Jerome Bruner and R. Tagiuri, "The Perception of People," Handbook of Social Psychology, ed. George Lindzey (Cambridge, Mass.: Addison-Wesley, 1954), pp. 634-54.

early studies which prevented accurate estimates of emotion resulted from a reliance on posed expressions by actors. Furthermore, many of these posed emotions appeared unnatural to observers. From these early studies it was learned that an understanding of contextual information and the appearance of natural behaviors were necessary to studies of nonverbal behavior.

Three serious questions confront the researcher when he chooses to study and analyze nonverbal data: (a) When to look, (b) What to look for, and (c) How to observe. But no problem has been more difficult than the question of deciding what observational unit to use. The failure to develop useful categories has handicapped the study of nonverbal behavior. Observational categories developed by educational researchers have been too broad and too vague in their definition. Categories such as supportive, disapproving, positive, negative, attentive, responsive, etc., are representative of these broad categories. Another limitation associated with choosing behavioral units has been the unanswered questions of how long or short a unit of observation should be and what form it should take. Three seconds? Thirty seconds? Three minutes? A photograph? A frame of film? A naturally occuring unit of unspecified duration? Do you observe nonverbal behavior during speech, or do you reserve nonverbal observations for periods of silence? All nonverbal phenomena cannot be observed at once. An observer must make choices about when, what, and how to observe. There is an obvious difference between watching a teacher move from desk to desk and looking for eye contact and a mutual glance. In one context, movement among pupils may be a significant act, but in another situation a glance carries a heavy loading of influence.

The research challenge facing students of nonverbal behavior is the collection of data which demonstrates that noverbal cues provide crucial information unobtainable from studies of verbal behavior. Most of the basic research data in teacher behavior and student activity comes from verbal and vocal behavior as revealed by typescripts and tape recordings. In theory and in the exploratory studies already achieved, it is clear that nonverbal behavior is a rich source of information that can be observed with profit. The need for data and evidence on the distinctive kinds of information that nonverbal behavior yields is a necessary next step. When are nonverbal behaviors truly redundant with verbal messages? Under what conditions? How do they differ? What are the advantages of nonverbal behavior studies over analyses of verbal behavior?

Recent Research Approaches

In the past few years, researchers have turned to the study of nonverbal language. These researchers are convinced that what human beings express with their body movements can be more informative than what they say. Anthropologists, sociologists, psychologists, and educators have all addressed themselves to the complexities and mysteries of nonverbal influence. Each discipline brings a peculiar kind of explanation and insight to this emerging field of study.

Anthropologists, looking for differences and similarities in body language, are interested in cross-cultural studies of gesture and movement.[17] Their particular interest centers on how nonverbal languages are learned and what unique forms they take in cultural expression. In anthropology, studies of nonverbal language are based on analyses of cultural behavior. Anthropologists, such as Hall and Birdwhistell, would understand the term "communication" to be synonynous with culture.

The work in sociology has been mostly theoretical and explanatory, rather than empirical. Goffman[18] reflects the bias of sociology when he states that human identity is a product of role performance. His work has been an analysis of the expressions a person gives off (nonverbal) rather than of the expressions one gives (verbal). His speculative accounts of nonverbal influence have emphasized consistently the behavioral attributes of human contact. Unlike psychologists, who choose to observe finite and specific modes of nonverbal expression, Goffman's analyses reflect a molar and general view. He writes of impression management, expression games, strategic interactions, discrepant roles, and territorial regions. He is interested in how the body codes of role mangagement facilitate interaction and human contact.

Psychologists observe specific facial expressions and molecular body movements and are moving towards amassing a large amount of data that has implications for studies of psychotherapy and personality.[19] Human motivation and emotionality are the provinces of the psychologist, and studies of nonverbal behavior reflect this interest. Indeed, the "Freudian slip" is nothing more than extra information which reveals something that otherwise would not be available to the therapist. A recent work by Ekman and associates at the Langley Porter Institute on nonverbal behavior has begun to provide data that can be extremely useful to psychiatrists and therapists.[20] Ekman,[21] Mahl,[22] and Dittman and others[23] have done analyses of nonverbal cues during psychoteraphy interviews.

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[17]Birdwhistell, Kinesics, pp. 95-98, 173-86.

[18]Goffman, The Presentation of Self, pp. 1-16.

[19]Paul Ekman and Wallace V. Friesen. "The Repertoire of Nonverbal Behavior: Categories, Origins, Usage and Coding," Semiotica, 1:49-98; 1969.

[20]Paul Ekman and others, The Face and Emotion (New York: Pergamon Press, 1971).

[21]Paul Ekman, "Body Position, Facial Expression and Verbal Behavior During Interviews," Journal of Abnormal and Social Psychology, 68:295-301; 1964.

[22]George F. Mahl, "Gestures and Body Movements in Interviews," Research in Psychotherapy, 3;1968.

[23]Allen T. Dittman and others, "Facial and Bodily Expression: A Study of Receptivity of Emotional Cues," Psychiatry, 28:239-44; 1965.

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In the past score of years, educational researchers have been creating and developing numerous observational instruments that describe classroom interaction. Similar to the spirit of instrument development for verbal behavior, researchers have recently been busy constructing nonverbal observational schemes. Building on the work of Galloway, a study was conducted by French[24] to determine whether a combination of verbal and nonverbal data might be more useful than verbal behavior alone. His findings demonstrated that much meaningful teacher behavior is nonverbal and cannot be ignored if an inquirer into classroom interaction wants to obtain full information and wants to provide useful feedback data to the teacher. French's research also revealed that personalized communicative contacts by teachers were rare during classroom activities.[25] Another observational instrument that combines verbal and nonverbal behaviors has been developed by Heger.[26] His instrument, called Mini-TIA, reflects the earlier work of Flanders and Galloway but emphasizes neither a verbal and nor nonverbal behavior as more significant. Anderson's development of a verbal and nonverbal observational instrument provides descriptions of a teacher's overall teaching style and the uses of instructional materials which accompany teacher strategy.[27] Klein's study used separate measures of verbal and nonverbal teacher behavior--Flanders Interaction Analysis and the Visual Observation Schedule of Teacher Behaviors--to determine whether student classroom behavior predictably influences teacher behavior.[28]

In Galloway's initial study of nonverbal communication in classroom situations, he attempted to develop an observational system to describe the consequences of nonverbal acts.[29] Bound by his pedagogical interest in the effects of teacher behavior on subsequent student behavior, he created observational categories that had broad rather than specific definitions. In a critical sense, his categories were not nonverbal

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[24]Russell L. French, "A Study of Communication Events and Teacher Behavior: Verbal and Nonverbal" (paper presented at the American Educational Research Association annual meeting, March 1970, Minneapolis).

[25]Ibid.

[26]Herbert K. Heger, "Verbal and Nonverbal Classroom Communication: The Development of an Observational Instrument" (paper presented at the American Educational Research Association annual meeting, March 1970, Minneapolis.

[27]Ronald D. Anderson and others, "Development of a Verbal and Nonverbal Observation Instrument" (paper presented at the American Educational Research Association annual meeting, March 1970, Minneapolis).

[28]Susan S. Klein, "Student Influence on Teacher Behavior" (unpublished Doctor's dissertation, Temple University, 1970).

[29]Charles Galloway, "An Exploratory Study of Observational Procedures for Determining Teacher Nonverbal Communication" (unpublished Doctor's dissertation, University of Florida, 1962.

definitions. The category system was composed of the following: (a) supportive, (b) helping, (c) attentive, (d) pro forma, (e) inattentive, (f) unresponsive, and (g) disapproval. The first three categories reflect teacher behavior which encourages commmunicative contacts and the latter three categories reflect restricted teacher-student interaction. The purpose of his study was to determine whether a reliable observational procedure could be developed. He succeeded in creating an observational instrument, but the data were not any more illuminating than the evidence which followed from Hughes' categories of controlling, teacher imposition, facilitating, positive affectivity, and negative affectivity; from Anderson's general claims that a difference exists between teacher behaviors which are dominative and integrative; or from Flanders' distinction between direct and indirect teacher behaviors.

In a later extension of Flanders' initial category system, which describes verbal interaction, Galloway subscripted additional categories on each of the Flanders' categories.[30] By grafting on categories, Galloway attempted to describe teacher nonverbal behavior which accompanied verbal activity. But again, these additional categories were not strictly nonverbal in character. Pure nonverbal categories usually relate to face activity, body movement, or gesture. Galloway's categories had pedagogical referents which implied teaching and learning consequences.

By extending Galloway's initial category system, Victoria[31] was successful in developing a typology of nonverbal gestural behavior which was exhibited by student teachers in art. Observations of these teachers were made during specified contexts of task-setting, demonstration, and evaluation.

The advantage of using category systems for observation is obvious. Their use implies economy of effort, and their ability affords an abbreviated version of note-taking. But the data provided by category schemes can be limited in value, and the shorthand advantage can preclude observations of behavior which are not included in the definitions of categories. A promising approach for observing behaviors which has received limited use is the recording of nonverbal acts in narrative descriptions. Jackson's Life in Classrooms[32] and Smith and Geoffrey's Complexities of an Urban Classroom[33] provide excellent illustrations of the method of observing classroom phenomena by the use of written descriptions of behavior. In each instance taking the role of participant observer, these

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[30]Galloway, Teaching Is Communication, pp. 14-16.

[31]James J. Victoria, "An Investigation of Nonverbal Behavior of Student Teachers" (unpublished Doctor's dissertation, Pennsylvania State University, 1970).

[32]Phillip Jackson, Life in Classrooms (New York: Holt, Rinehart, and Winston, 1968).

[33]Louis Smith and William Geoffrey, The Complexities of an Urban Classroom (New York: Holt, Rinehart, and Winston, 1968).

researchers wrote narrative accounts of what they saw and understood about classroom activity. Such an approach has heuristic advantages and is not limited to the deductive limitations of predefined categories. Indeed, categories of interest can emanate from the data when the researcher has taken an inductive approach rather than a deductive one. Writing narrative descriptions of nonverbal behavior enables the observer to note significant behaviors not otherwise included by previously defined categories.

In his work, Ekman has found it useful to distinguish between two kinds of analytic methods for determining the meaning of nonverbal behavior: the indicative and the communicative.[34] While these two methodological approaches have been developed from his research in psychotherapy, they have applicability to studies in classroom interaction. The indicative approach measures the relationship between the appearance of a nonverbal cue and its effect on a subsequent event. A nonverbal cue may manifest itself because of a personal characteristic, perceived role performance, or situation. For example, a teacher may habitually frown when a student answers a question because the teacher is a chronic frowner, or because he believes teachers should never be satisfied with students' answers, or because a student answered badly. Regardless of the reason, a frown takes on psychological meaning and indicates something, when students can be seen to hesitate in answering questions or when they appear unhappy with their answers in the face of teacher frowning. In this case, the nonverbal cue of frowning was indicative because it indicated student uncertainty or dissatisfaction. But indicators do not have to achieve communicative value in order to be studied, for it is entirely possible to observe frowning among teachers and never know its real effect on students. Communicative studies differ from indicative approaches in this precise respect, for the burden of proof rests on the agreement of observers. Simply put, responders to a nonverbal cue must agree that it represents something. For instance, if a significant number of students agreed that when their teacher frowned it represented teacher dissatisfaction or impatience with student behavior, then a communicative value could be assigned to a frown. Communicative studies are not dependent on the intent of the sender who may not realize that he is frowning or that his frown implies anything. Agreement among observers (responders) is the sole criterion for establishing the communicative import of a behavior. The assignment of a value by observers to a behavior may be inaccurate or distorted, but its communicative value rests on observer agreement. In this case, it is the response of the observers that is measured, not the nature of the nonverbal behavior itself. The advantage of communicative studies is obvious: a researcher does not have to measure the form and quality of the nonverbal behavior. Using observer agreement as the analytic approach, Davitz has been successful in conducting a number of studies on the communicative expression of emotional meaning.[35] While these two approaches--indicative and communicative--can be combined into a single study, their focus is patently different. Communicative

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[34] Ekman, "Nonverbal Behavior in Psychotherapy," pp. 195-98.

[35] Davitz, The Communications of Emotional Meaning.

methods seek agreement among judgments relative to a single behavior, and indicative approaches single out behaviors for observation by noting their frequency and rate of appearance.

Nonverbal Training and Skill Development

Nonverbal training and skill development for teachers are currently in their beginning phases. Two major directions for improving nonverbal skills have been evident: (a) teachers learn how to obtain accurate and useful data about their own behavior and its meaning for students, and (b) teachers acquire techniques for observing and detecting nonverbal information that is transmitted by students. For a teacher to be able to read the meaning of his own behavior and to be able to read the behavioral meanings of student behavior is the essence of nonverbal skill and ability. At a commonsensical level, it is quite obvious that teachers vary considerably in their ability to be sensitive to their own behavior and to student behavior. Promising training approaches are just beginning to be developed. One of the first efforts in education to train teachers was initiated in 1967 by a workshop program developed by the American Association of Colleges for Teacher Education. The four components of the workshop format were interaction analysis, microteaching, simulation, and nonverbal communication. College and university professors engaged in teacher education programs across the country and in Canada and Puerto Rico were introduced to nonverbal communication via media presentations and skill sessions. A videotaped presentation on nonverbal communication can still be obtained from Ampex Corporation.

Training sessions that actually sensitize teachers to nonverbal information are difficult to develop. Most trainers rely heavily on expository materials. Indeed, the literature on nonverbal behavior is rich and informative and represents a significant aspect of current training programs. A number of information sources can be most helpful to the beginning student of nonverbal behavior. A careful reading of the following works, to name a few, should prove beneficial: Ruesch and Kees' Nonverbal Communication; Goffman's The Presentation of Self in Everyday Life; Birdwhistell's Kinesics and Context; Davitz's The Communication of Emotional Meaning; Hall's The Silent Language; Ekman and others' The Face and Emotion; and Galloway's Teaching Is Communicating: Nonverbal Language in the Classroom. A number of articles which can be found in the bibliography should also be helpful.

A number of training approaches for teachers has been developed recently. Love and Roderick[36] at the University of Maryland have developed an entire program for introducing students to the significance of nonverbal cues. They take the position that nonverbal cues in themselves are neither good nor bad but simply influential. Their training emphasis focuses on the need for the teacher candidate to be alert to nonverbal

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[36]Alice M. Love and Jessie A. Roderick, "Teacher Nonverbal Communication: The Development and Field Testing of an Awareness Unit," Theory Into Practice; 10:295-99; October 1971.

information and to become more aware of nonverbal influences in teaching. At the University of Tennessee, French[37] has created a model for in-service education which relies on an analysis of nonverbal influences in teaching. The four components of the model, which comprise a program for training students, are (a) pupil assessment, (b) analysis of environmental communications, (c) teacher self-assessment, and (d) development of curriculum and instruction in human communication.

Implications for Teacher Education

The theoretical developments and research results of the past several years are more suggestive than definitive. No ready-made schemes for training teacher candidates or in-service teachers are currently available. Much of the work on nonverbal behavior proceeds piecemeal, with each trainer or researcher creating emphases which he deems most desirable. Whether the focus is on noting teacher nonverbal behaviors or detecting the significance of silent student behaviors, the teacher educator enhances the study of pedagogy when studies of nonverbal cues are included in the curriculum. But the true import of nonverbal behavior for teacher education would emphasize both teacher and student nonverbal cues. Analyzing the influences and effects of nonverbal information from either source has significance for better understanding the nature of teaching and learning.

The nonverbal realities of classroom life reflect different classes of data which can prove useful to the practitioner and to the researcher. Nonverbal cues provide information to both participants and observers. This implicit information represents the hidden realities and the unspoken understandings of what is to be understood. Information is always available, whether it be in the form of furniture arrangements, duration of class periods, facial expressions, gestures, or vocal intonations and inflections. All of this occurs whether the teacher and student are aware of its meaning or not. Nonverbal information is always available in some form, but information is not always communication. A communicative act occurs when a teacher or student intentionally attempts to send a message. An intention to communicate differs from the sheer availability of information. A sender must deliberately attempt to convey a message for it to be considered communication. Nonverbal communication implies that information is available at a level of awareness and that a conscious effort is made to transmit a message. When information is available to a teacher or to a student that is not intentionally communicated, then these data are merely informative. When a teacher or student acts to influence each other, these actions are recognized as interactive. Interaction is marked by the distinction of achieving influence on the perception and behavior of another. In effect, classroom events can be informative, communicative, and interactive. Nonverbal signs, signals, and events can provide information regarding the realities of classroom life; they

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[37] Russell L. French, "Analyzing and Improving Nonverbal Communication: A Model for Inservice Education," Theory Into Practice, 10:305-10; October 1971.

can occur as intentional efforts to communicate expectations and instructions; and they can appear as moves to influence perceptions and behaviors.

Teachers provide information for students; they intentionally communicate to students; and they interact with students. These data are made available in verbal and nonverbal ways. And, of course, students inform, communicate, and interact with teachers. But the profound implication for teacher education rests with our need to collect and analyze the significance of nonverbal acts and events during teaching and learning.

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